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Gait

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(54) **APPARATUS AND METHOD FOR
STRINGING TRADITIONAL POCKETS
WITHIN A LACROSSE STICK HEAD**

(71) Applicant: **Paul Gait**, Attamont, NY (US)

(72) Inventor: **Paul Gait**, Attamont, NY (US)

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A63B 51/00 (2015.01)

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A63B 102/14 (2015.01)

(52) **U.S. Cl.**

CPC **A63B 59/20** (2015.10); **A63B 51/00** (2013.01); **A63B 60/50** (2015.10); **A63B 2102/14** (2015.10)

(58) **Field of Classification Search**

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See application file for complete search history.

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Primary Examiner — Jeffrey S Vanderveen

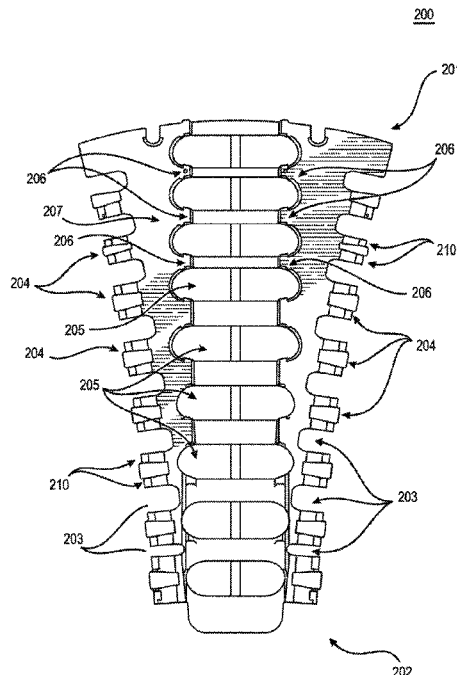
(74) *Attorney, Agent, or Firm* — Scarinci Hollenbeck, LLC; Libby Babu Varghese

(57)

ABSTRACT

An apparatus for stringing a traditional lacrosse pocket, comprising a substantially rectangular and concave shaped pocket form sized to fit inside a lacrosse head, a series of notches running along the longitudinal edges of the pocket form, a series of cutouts running along the longitudinal center of the pocket form, outside runner guides positioned in-between the notches along the longitudinal edges of the pocket form and a pair of middle runner guides positioned in-between each of the cutouts running along the longitudinal center of the pocket form, each of the pair of the pair of middle runner guides positioned on opposite sides of the longitudinal center.

1 Claim, 7 Drawing Sheets



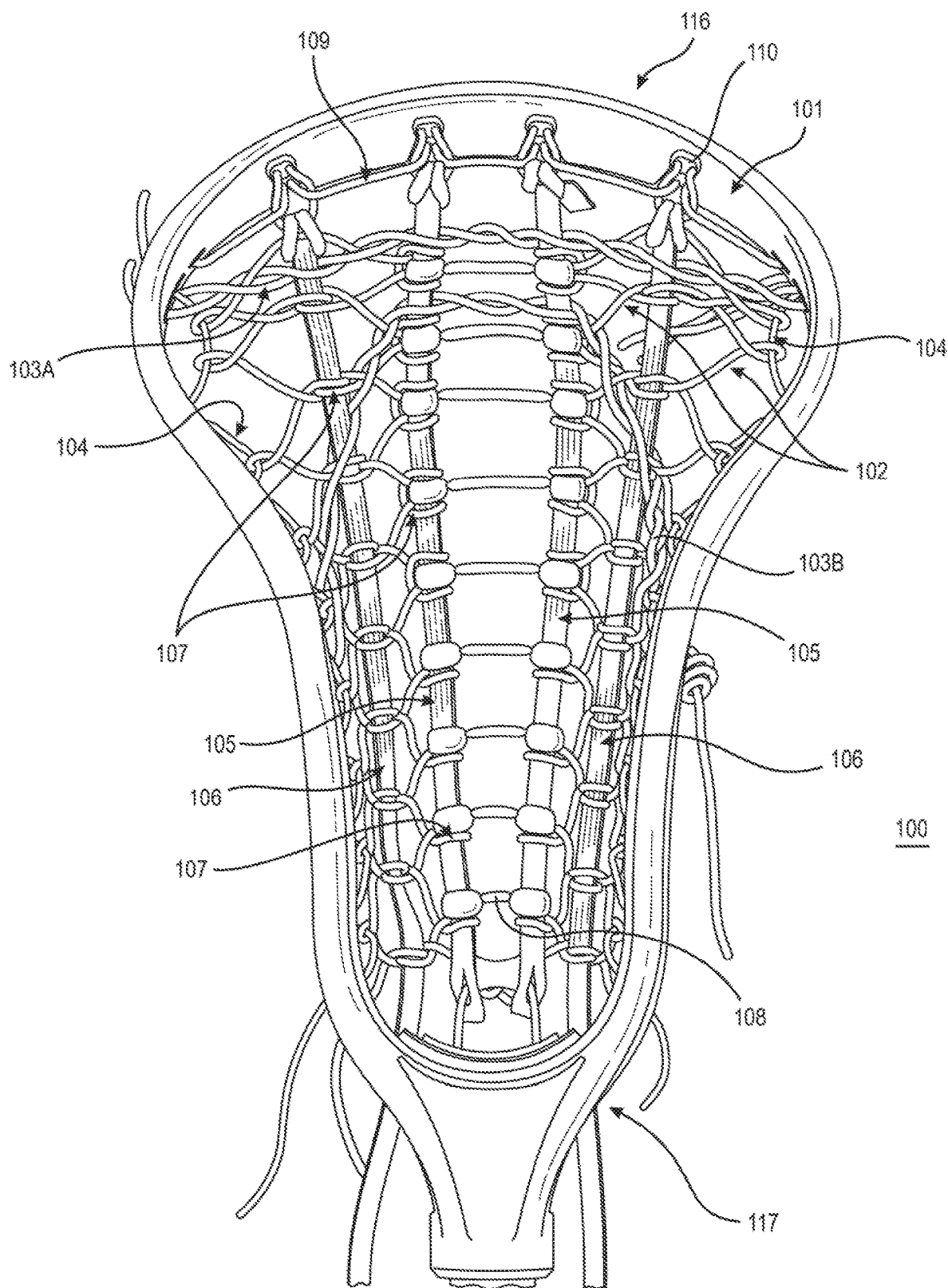


FIG. 1A

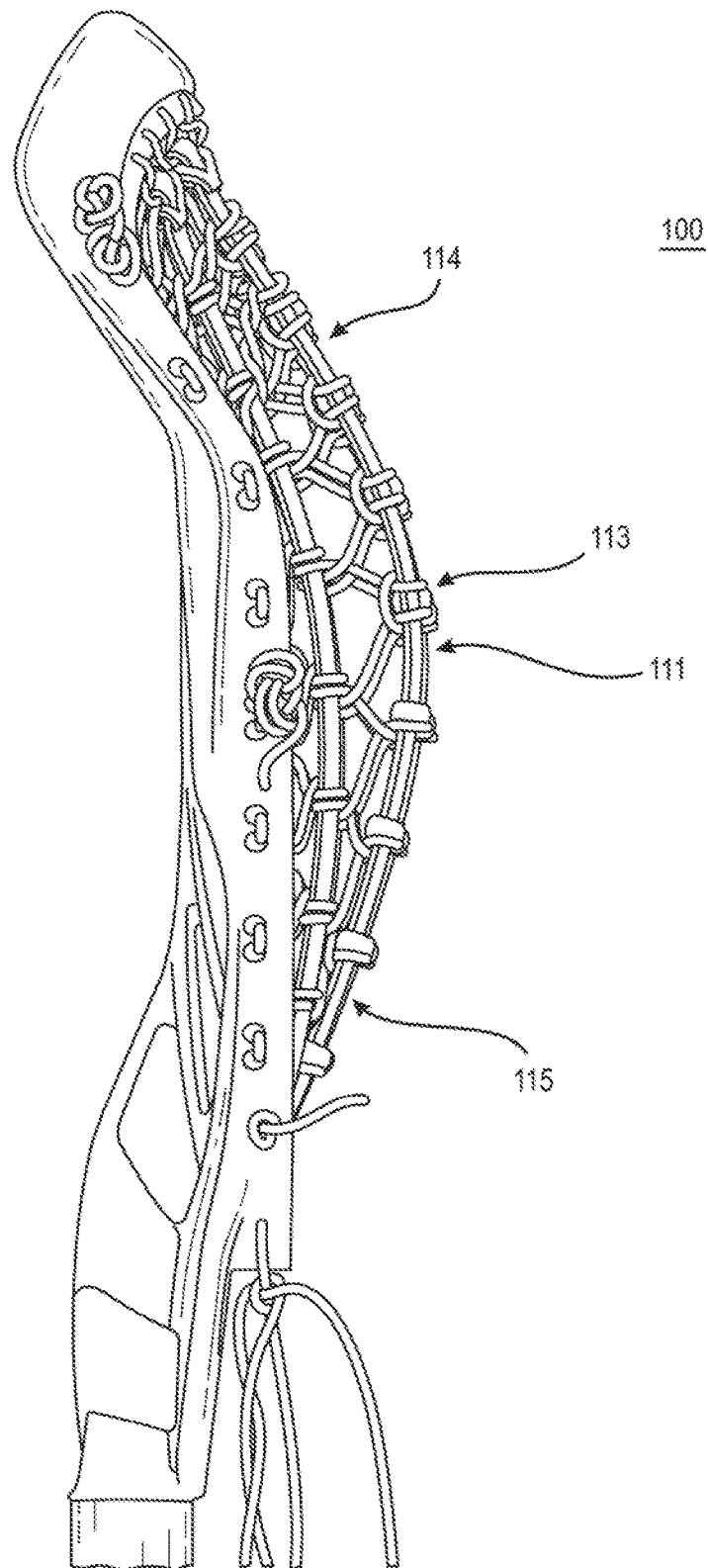


FIG. 1B

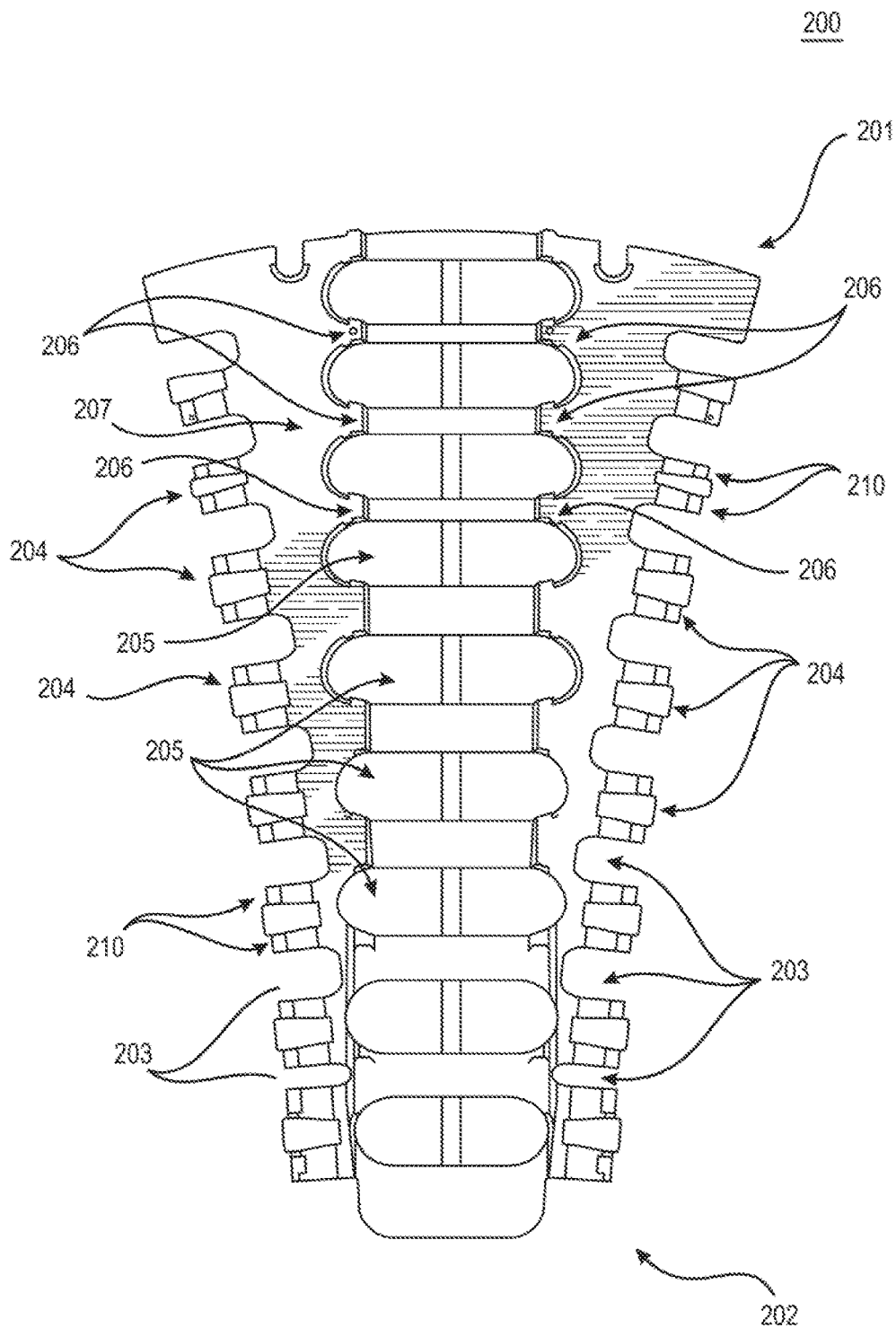


FIG. 2A

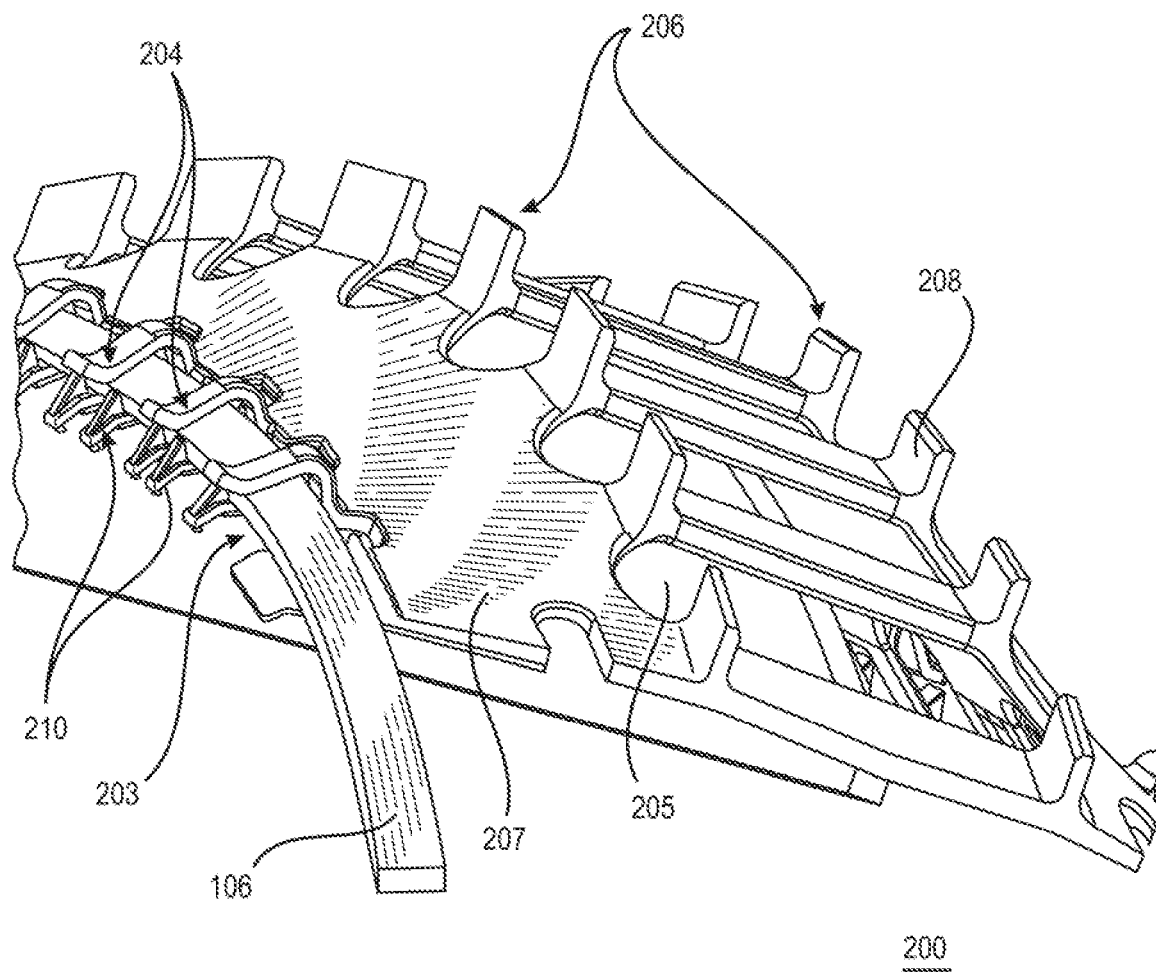


FIG. 2B

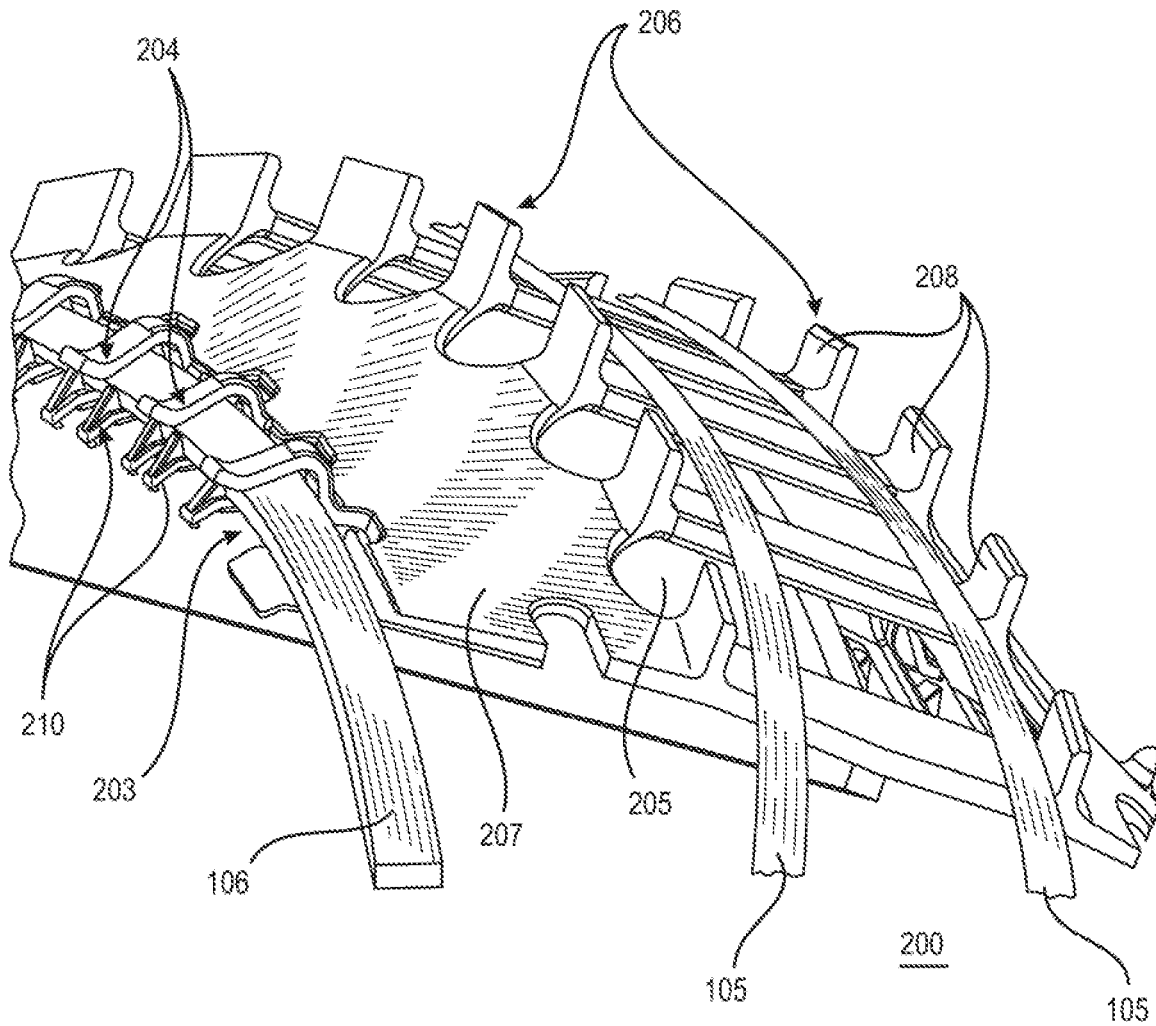


FIG. 3

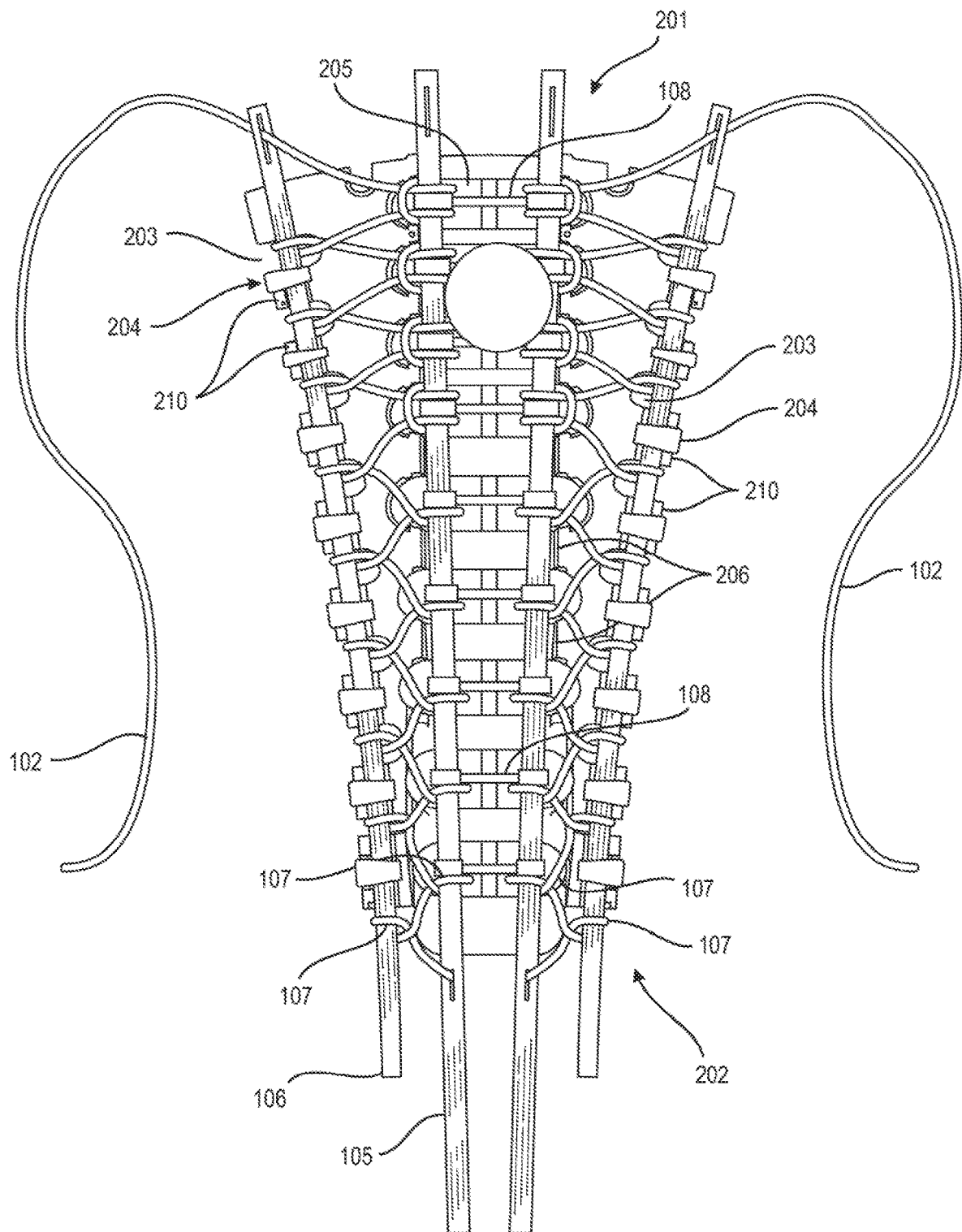


FIG. 4

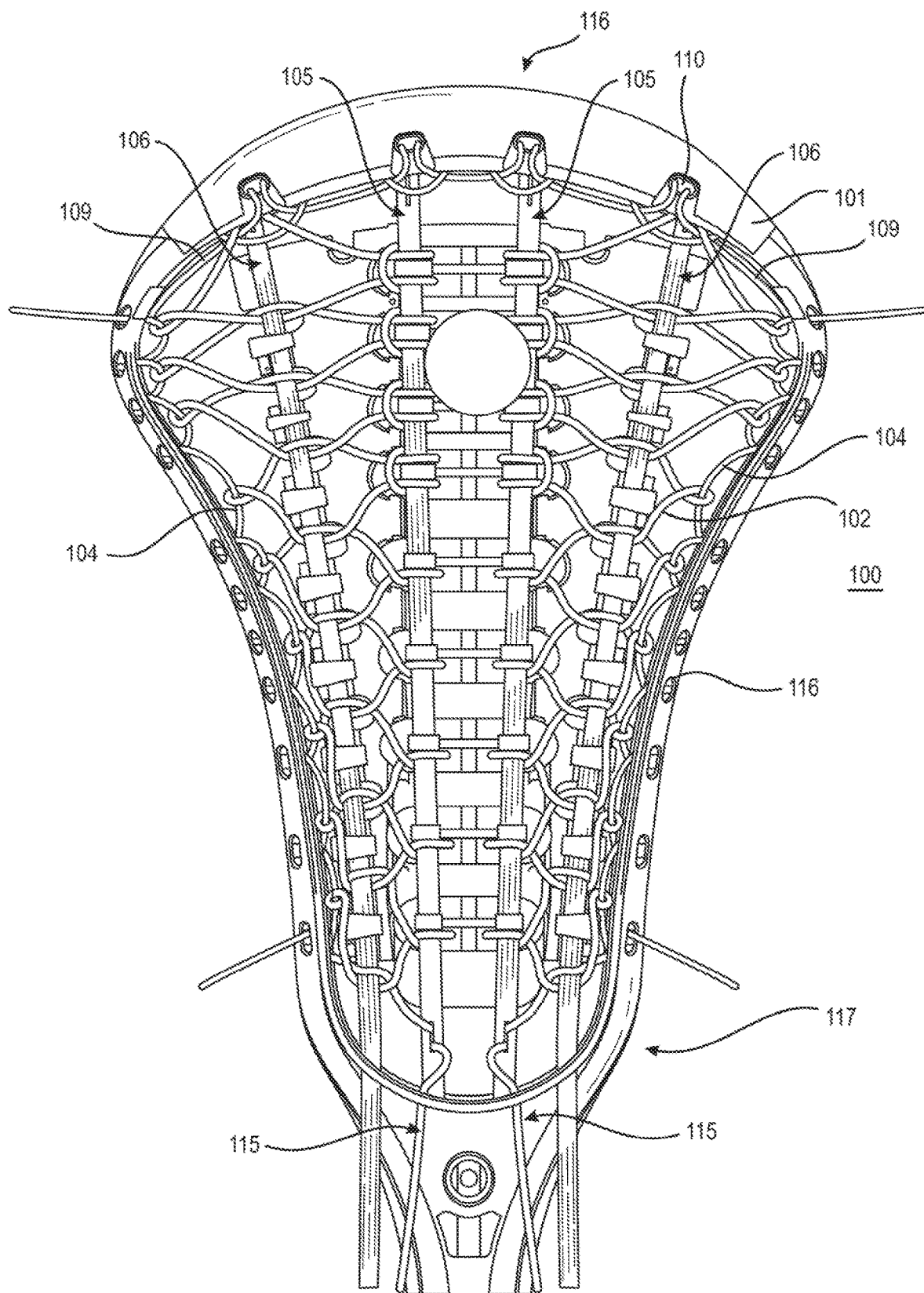


FIG. 5

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APPARATUS AND METHOD FOR STRINGING TRADITIONAL POCKETS WITHIN A LACROSSE STICK HEAD

This Application claims priority to Provisional Patent
Application 62/423,990 filed on Nov. 18, 2016.

FIELD OF THE INVENTION

This disclosure relates generally to an apparatus and
method for stringing traditional pockets for a lacrosse stick.
The apparatus comprises a plurality of guides that hold
thongs typically used in a traditional pocket of a lacrosse
stick at any depth desired by a user and guides the user in the
nylon placement during stringing. The guides can also be
used to produce a variety of different shaped pockets. The
apparatus and method greatly decrease the skill required to
install a high quality traditional pocket in a lacrosse stick.
The apparatus and method also increase the consistency in
the shape of the pocket. For example, the apparatus and
method enable the user to replicate the same pocket for
numerous lacrosse sticks because the form controls the
depth of the thongs and the nylon placement during all steps
of stringing into the lacrosse head. Once the stringing of the
pocket is completed the flexible or removable runner holders
allow the form to be removed from the lacrosse head. In
other words, the apparatus and method remove the most
influential variables associated with the installation of a
traditional lacrosse pocket during all steps of installation.

BACKGROUND

Over the last thirty years the number of people playing
lacrosse has increased dramatically. Today, in some loca-
tions, youth lacrosse is as popular as little league baseball
and college teams are drawing over 30,000 people to a single
game. Moreover, two professional leagues have been
formed with teams in many of the largest cities around the
United States and Canada.

As the sport has grown, the quality of play has also
improved. Players are faster, stronger, and more skilled than
ever before. Today, it is not uncommon for players to shoot
a lacrosse ball in excess of 100 mph or pass behind their
back with pin-point accuracy. As a result, players are
demanding more of their equipment. The old hand carved
wooden sticks are no longer used for playing the sport.

To satisfy this demand, companies have improved the
design of lacrosse sticks. The old wooden sticks have been
replaced by the combination of aluminum or titanium handle
and a plastic head. The new handles and heads are designed
to decrease the stick's weight, increase its durability, and
improve its overall performance. However, no one has
designed an efficient apparatus or method for stringing a
traditional pocket for a lacrosse stick let alone stringing a
high quality traditional pocket consistently.

People have tried to improve the quality of the pockets by
stringing the pockets with different materials or in different
patterns, but none of these ideas have succeeded. For
example, in men's lacrosse, mesh pockets were created as an
alternative to traditional pockets. The main advantage of a
mesh pocket is the ease of stringing and the consistent shape.
These advantages have allowed the mesh pocket to become
the norm in the men's game. However, mesh style pockets
are not allowed for women's play. As a result, there is still
a need to improve the ease of stringing a traditional style
pocket with a consistent shape.

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To obtain a quality lacrosse pocket, lacrosse players must
buy the materials for a pocket separately from the stick and
pay an expert to install the pocket as the pockets sold at retail
stores are strung inconsistently (i.e., the nylon placement,
tension, depth, and shape of the pocket are random). If a
lacrosse player does not know an expert, they must suffer the
consequences of using a pocket which provides inadequate
ball control, passing accuracy, and shooting speed. In addi-
tion, even an expert cannot string the same pocket twice in
the same way. Thus, every time a player uses a new pocket,
it takes several weeks to become familiar with how that
particular pocket passes and shoots. These inconsistent
pockets are a significant problem because lacrosse sticks
frequently break during the middle of a game.

What is needed is an apparatus and method for stringing
a traditional lacrosse pocket easily and consistently. Further,
what is further needed is an apparatus and method for
stringing a traditional lacrosse pocket without requiring an
expert. Further, what is needed is an apparatus that allows
traditional lacrosse pockets to be mass produced and inven-
toried so that they are ready for quick installation. Lastly,
what is needed is an apparatus and method for stringing a
traditional lacrosse pocket that can be mass-produced and
easily installed into the lacrosse head, to satisfy the growing
demand.

SUMMARY OF THE INVENTION

The present invention is a new apparatus and method for
stringing traditional pockets for a lacrosse stick. The present
invention uses a plurality of guides to hold the runner/thongs
used in a traditional pocket at the depth dictated by the
molded shape of the runner guides and notch locations. The
guides and the notch locators of the present invention do not
change to create a very consistently shaped lacrosse pocket.
Thus, the present invention greatly decreases the skill
required to string a high quality traditional lacrosse pocket
with or without the lacrosse head.

The present invention also increases the consistency in the
shape of the pocket. For example, if someone strings a
traditional pocket with the present invention, the present
invention enables the user to replicate the same pocket
because the depth of the runner/thongs and the nylon place-
ment are controlled. In other words, the present invention
removes the most influential variables associated with the
installation of a traditional lacrosse pocket.

The present invention also improves the ease of stringing
most of the pocket with the exception of that portion that
anchors the pocket to the head. The pocket can be strung
onto the form and then stored for installation into the head
at a later time. This allows for mass-production of pre-strung
pockets. Moreover, the molded form holds the pocket in
shape preventing shrinking and distortion during storage.

The present invention also improves the ease and speed of
stringing a pre-strung traditional style pocket into a lacrosse
head. The molded pocket form consisting of flexible or
removable runner/thong guide holders, allow the pre-strung
pocket to be held to the molded form while being strung into
a lacrosse head. The runner/thong holders securely anchor
and align the top and bottom of each runner with the
corresponding stringing holes of the lacrosse head, reducing
time and difficulty of securing the pocket to the top and
bottom of the lacrosse head. With the top and bottom of the
runners securing the pocket and pocket form in the correct
shape the outside runners can easily be aligned and strung to
the side wall lace or stringing holes of the lacrosse head.
Once the pocket is completely strung into the lacrosse head,

the flexible or removable runner/thong holders allow the form to be released, from the head, leaving a consistent preformed pocket.

The present invention will allow non-expert and expert stringers to have an inventory of partially completed traditional pockets on hand and be able to string them into any lacrosse head in less than half the time normally required.

As a result, lacrosse players and retailers will no longer have to rely on expert stringers, who can be inconsistent and slow when stringing. Using the present invention, any person can consistently string high quality pockets in a speedy and consistent fashion. The present invention works with any type of lacrosse head.

BRIEF DESCRIPTION OF THE DRAWINGS

This disclosure is further described in the detailed description that follows, with reference to the drawings, in which:

FIG. 1A is a front view of a lacrosse stick head strung with a traditional pocket.

FIG. 1B is a side view of a lacrosse stick head strung with a traditional pocket.

FIG. 2A is a front view of a pocket form.

FIG. 2B is a side view of the pocket form.

FIG. 3 is a perspective view of the pocket form showing the placement of runners within the pocket form.

FIG. 4 is a perspective view of the pocket form showing the interlacing and knotting of the lacing string within the pocket form.

FIG. 5 is a back view of the head of the lacrosse stick with a traditional pocket strung using the pocket form.

DETAILED DESCRIPTION

An exemplary embodiment of an apparatus and method for stringing traditional pockets within a lacrosse stick head is disclosed. As required, detailed embodiments of the present invention are disclosed herein however, it is to be understood that the disclosed embodiments are merely exemplary of the invention that may be embodied in various and alternative forms. The figures are not necessarily to scale and some features may be exaggerated or minimized to show details of particular components. Therefore, the structural and functional details disclosed herein are not to be interpreted as limiting, but merely as a representative basis for teaching one skilled in the art to variously employ the present invention.

In FIG. 1A, a front view of a lacrosse stick head strung with a traditional pocket is shown. As shown in FIG. 1A, the traditional pocket 100 strung within the head 101 of a lacrosse stick includes lacing strings 102, shooting strings 103A and 103B, side wall laces 104, inner runners 105 and outer runners 106.

The lacing strings 102 are interlaced with and knotted to the inner and outer runners 105 and 106 at specific locations 107 across the entire area of the traditional pocket 100 and are preferably made of nylon. However, a variety of other man made or natural materials with similar pliability and strength may also be used while remaining within the scope of the present disclosure.

The inner runners 105 run the longitudinal length of the traditional pocket 100 from the top of the head 116 to the bottom of the head 117, the inner runners 105 being positioned near the longitudinal center of the traditional pocket 100. The inner runners 105 are connected using multiple

individual lacing strings 108 that are generally evenly spaced along the length of the inner runners 105.

Similarly, the outer runners 106 also run the longitudinal length of the traditional pocket 100 from the top of the head 116 to the bottom of the head 117, the outer runners 106 being positioned near the outer edges of the head 101 and are preferable made of leather. However, a variety of other man made or natural material with similar pliability and strength may also be used while remaining within the scope of the present disclosure, including nylon.

The top and bottom shooting strings 103A and 103B are interlaced within the lacrosse pocket to assist in the adjustment of the release angle of the pocket. Typically, the tighter the shooting strings 103A and 103B, the greater the release angle. The bottom shooting string 103B is always looser than the top shooting string 103A and can be woven to form a curved U shape. This U shape prevents the ball from moving side to side when shooting or passing.

The side wall laces 104 are used as another method of adjusting the depth of the lacrosse pocket. One can loosen the sidewall laces 104 to increase the overall depth of the pocket 100 or tighten to decrease the depth of the pocket 100.

The upper lateral edge at the top of the head 116 include four evenly spaced scoops 110 used to secure the inner and outer runners 105 and 106 to the head 101 using a top lace 109.

In FIG. 1B, a side view of a lacrosse stick head strung with a traditional pocket is shown. As shown in FIG. 1B, the traditional pocket 100 has a defined shape and depth to accommodate a standard lacrosse ball. The pocket 100 can be strung with different tensions and shapes to create a defined low spot 111 within the pocket 100. In the past, players have had the low spot 111 closer to the ball stop area 115 of the lacrosse head 101. In today's game, players are using pockets that have a defined low spot 111 in the middle 113 or upper 114 areas of the lacrosse head 101. FIG. 1B shows a defined low spot 111 in the middle portion 113 of the head 101.

In FIG. 2A, a front view of a pocket form is shown. As shown in FIG. 2A, the pocket form 200 has a tapered rectangular shape, the shape evenly tapering from a wider upper end 201 to a lower narrower end 202 that is approximately two inches narrower than the upper end 201. The longitudinal length of the pocket form 200 is approximately equal to two and half times the width of the wider upper end 201.

As further shown in FIG. 2A, a series of evenly spaced notches 203 are cut out along the entire length of each longitudinal edge of the pocket form 200. An outer runner guide 204 is positioned in between each of the notches 203, each outer runner guide 204 rising upward from an upper surface 207 of the pocket form 200 and outward towards a corresponding longitudinal edge.

A retaining clip 210 is position on each side of each outer runner guide 204. Each retaining clip 210 extending outward from a corresponding longitudinal edge and including an upward rising tab that reaches the bottom surface of its corresponding outer runner guide 204.

Each outer runner guide 204 and its surrounding retaining clips 210 are flexible as to allow for the insertion, retention and eventual removal of the an outer runner 106 while stringing the pocket 100.

In another embodiment, the outside running guides 204 are removably attached to the surface upper surface 207 of the pocket form 200.

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As further shown in FIG. 2A, a series of inner cutouts **205** are evenly position on each side of and running along the full length of the longitudinal center of the pocket form **200**. An inner runner guide **206** is positioned in between each of the inner cutouts **205** on each side of the longitudinal center of the pocket form **200**, each inner runner guide **206** rising upward from the upper surface **207** of the pocket form **200**.

The pocket form **200** may be made of any semi-rigid material including metal, wood, plastic or any other material know to a person of reasonable skill in the art.

In FIG. 2B, a side view of the pocket form is shown. As shown in FIG. 2B, the pocket form **200** is concave shaped along its longitudinal length. The curve created by this concave shape helps facilitate the creation of a traditional pocket **100** with a consistent shape and depth.

As also shown in FIG. 2B, the outer runner guides **204** and the retaining clips **210** interact to define a space in which an outer runner **106** may be inserter and temporality retained as to follow the concave shape of the pocket form **200**.

Similarly, the inner runner guides **206** follow the same concave shape as they extend upward from the surface **207** of the pocket form **200**.

In FIG. 3, a perspective view of the pocket form showing the placement of runners within the pocket form is shown. As shown in FIG. 3, an outer runner **106** is securely placed within the spaces defined by the outer runner guides **204** and their corresponding retaining clips **210** along each longitudinal side of the pocket form **200**.

As further shown in FIG. 3, an inner runner **105** is placed over the inner cutouts **205** and positioned up against an inner surface **208** of each of the inner runner guides **206** on each side of the longitudinal center of the pocket form **200**.

In FIG. 4, a front view of the pocket form showing the interlacing and knotting of the lacing string within the pocket form is shown. As shown in FIG. 4, a lacing string **102** is interlaced with and knotted in a crisscross fashion to the outer and inner runners **105** and **106** positioned on each longitudinal side of the pocket form **200**. The interlace and knotting positions **107** on the inner and outer runners **105** and **106** are defined by the inner cutouts **205** running along the longitudinal center of the pocket form **200** and the notches **203** running along the longitudinal edges of the pocket form **200**. Specifically, the lacing string **102** is initially interlaced around the outer runner **106** at a first notch **203** position starting from the narrower lower end **202** of the pocket form **200**. The lacing string **102** is then knotted around the inner runner **105** at the first inner cutout **205** position starting from the narrower lower end **202** of the pocket form **200**. This continues on to the second notch **203** position **107** on the longitudinal edge and the second inner cutout **205** position **107** and so on upward towards the larger upper end **201** of the pocket form **200**.

As shown in FIG. 4, the notches **203** and inner cutouts **2054** are positioned and spaced along the longitudinal length of the pocket forms **200** as to form a diamond shaped weave with the lacing strings **102** interleaved and knotted to the inner and outer runner **105** and **106** on each longitudinal side of the pocket form **200**. However, in another embodiment, the notches **203** and inner cutouts **205** may be positioned and spaced as to form a square shaped weave or a weave of any other shape. Moreover, the notches **203** and inner cutouts **205** may be unevenly spaced such as to form a combination of weave patterns or random weave patterns using the lacing strings **102**.

As further shown in FIG. 4, the inner runners **105** are attached to each other using individual lacing strings **108**, the ends of each individual lacing string **108** knotted to an

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inner runner **105** on each side of the longitudinal center at positions defined by each of the inner cutouts **205**.

In another embodiment, the spacing of the notches **203** running along the longitudinal edges of the pocket form **200** may be varied as to accommodate interlacing at different positions on the outer runners **106** alone. Similarly, the spacing of the inner cutouts **205** may be varied to accommodate knotting at different positions on the inner runners **105** alone. The spacing between the notches **203** may also be varied to accommodate the formation of different lacrosse pocket shapes.

FIG. 5 is a back view of the head of the lacrosse stick with a traditional pocket strung using the pocket form. As shown in FIG. 5, the pocket form with a pre-strung pocket **100** can quickly be installed into a lacrosse head **101** by first securing an upper end of the inner and outer runner **105** and **106** to a corresponding scoop **110** positioned along the top portion **116** of the lacrosse head **101** using a top lace **109**. Next, the bottom end of the outer and inner runners **105** and **106** can be laced through ball stop holes **115** located at the bottom portion **117** of the head **101**. The cross lace **102** is then be woven in a similar crisscross pattern between the sidewall laces **104** and the outside runner **106**, using cross lace knots **116** along the outside runners **106**. This step is easily repeated until the cross lace **102** is woven between the remaining outside runner **106** and the outside runners **106** along the full longitudinal length of the head **101**. Once this is completed the pocket form **200** can easily be removed by pulling on it until the outer runner guides **204** and the retaining clips **201** release the pocket **100** from the pocket form **200**.

What is claimed is:

1. A method of stringing a traditional lacrosse pocket, comprising:
 - selecting a pocket form with tapered longitudinal edges and a concave shape and depth;
 - inserting outer runner within retaining spaces running along each longitudinal edge of the pocket form, the retaining spaces defined by outer runner guides and corresponding retaining clips positioned along the longitudinal edges;
 - inserting inner runners against inner surfaces of inner runner guides extending from an upper surface of the pocket form along its full longitudinal length of the pocket form;
 - weaving a lacing string through notches running along each of the longitudinal edges and inner cutouts running along the longitudinal center and thereby forming a predefined pattern on each longitudinal side of the pocket form;
 - knotting the lacing strings to the inner and outer runners along each longitudinal edge at positions defined by corresponding notches and inner cutouts;
 - connecting the inner runners with a plurality lacing strings running across each of the cutouts;
 - placing the pocket form within a lacrosse head;
 - securing an upper end of the inner and outer runners to an upper lateral edge of the lacrosse head;
 - securing a lower end of the inner and outer runners to a lower lateral edge of the lacrosse head;
 - weaving the lacing strings through sidewall laces and the outer runners with cross lace knots on the outer runners along each longitudinal edge of the pocket form, the sidewall laces attached to and running along an outer longitudinal edge of the lacrosse head; and

detaching the pocket form from the inner and outer runners and removing the pocket form from the lacrosse head.

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